

Please cite this paper as:

OECD (2007), "On the Edge: Securing a Sustainable Future for Higher Education", *OECD Education Working Papers*, No. 7, OECD Publishing.  
[doi:10.1787/220180871707](https://doi.org/10.1787/220180871707)



**OECD Education Working Papers  
No. 7**

## **On the Edge**

**SECURING A SUSTAINABLE FUTURE FOR  
HIGHER EDUCATION**

**OECD**

**Unclassified**

**EDU/WKP(2007)2**

Organisation de Coopération et de Développement Economiques  
Organisation for Economic Co-operation and Development

**26-Mar-2007**

**English - Or. English**

**DIRECTORATE FOR EDUCATION**

**ON THE EDGE: SECURING A SUSTAINABLE FUTURE FOR HIGHER EDUCATION**

**Report of the OECD/IMHE-HEFCE Project on Financial Management and Governance of Higher Education Institutions**

**(Education Working Paper No. 7)**

Contact:

Richard Yelland, Head, Education Management and Infrastructure Division, Directorate for Education  
Tel.: +33 (0) 1 4524 9260; e-mail: [Richard.Yelland@oecd.org](mailto:Richard.Yelland@oecd.org)

**JT03224426**

Document complet disponible sur OLIS dans son format d'origine  
Complete document available on OLIS in its original format

**EDU/WKP(2007)2**  
**Unclassified**

**English - Or. English**

**OECD DIRECTORATE FOR EDUCATION**

**OECD EDUCATION WORKING PAPERS SERIES**

This series is designed to make available to a wider readership selected studies drawing on the work of the OECD Directorate for Education. Authorship is usually collective, but principal writers are named. The papers are generally available only in their original language (English or French) with a short summary available in the other.

Comment on the series is welcome and should be sent to either [edu.contact@oecd.org](mailto:edu.contact@oecd.org) or the Directorate for Education, 2, rue André Pascal, 75775 Paris CEDEX 16, France.

The opinions expressed in these papers are the sole responsibility of the author(s) and do not necessarily reflect those of the OECD or of the governments of its member countries.

Applications for permission to reproduce or translate all, or part of, this material should be sent to OECD Publishing, [rights@oecd.org](mailto:rights@oecd.org) or by fax 33 1 45 24 99 30.

Copyright OECD 2007

## **ABSTRACT**

As higher education has grown and state funding has been constrained, the financial sustainability of institutions of higher education has become an issue for policy makers and for those who govern and manage these institutions. The challenge for governments is to ensure that increasingly autonomous institutions respond to public interest agendas while taking a greater responsibility for their own financial sustainability. The challenge for institutions is to manage an increasingly complex portfolio of aims and funding. This report examines the conditions needed to secure financial sustainability for the future from the national (policy) and institutional (management) perspectives.

## **RESUME**

A mesure que l'enseignement supérieur se développe et que le financement par l'Etat se restreint, la viabilité financière des établissements d'enseignement supérieur devient un enjeu pour les décideurs, ainsi que pour ceux qui gouvernent et gèrent ces établissements. Le défi auquel les gouvernements doivent faire face est de s'assurer que les établissements de plus en plus autonomes continuent de répondre à l'ensemble des intérêts publics tout en assumant une plus grande responsabilité pour leur propre viabilité financière. Quant aux établissements, leur défi réside dans la gestion d'un portefeuille d'objectifs et de financements de plus en plus complexe. Le présent rapport examine les conditions nécessaires pour garantir la pérennité financière dans l'avenir, d'un point de vue national (politiques) et institutionnel (gestion).

## FOREWORD

The University is no longer a quiet place to teach and do scholarly work at a measured pace and contemplate the universe as in centuries past. It is a big, complex, demanding, competitive business requiring large-scale ongoing investment.<sup>1</sup>

As higher education has grown and other pressures have constrained state funding, the financial sustainability of universities and other institutions of higher education has become an issue for policy makers, and for those who govern and manage these institutions.

Eight countries have participated in this project.<sup>2</sup> Their systems of higher education differ significantly, for example in terms of the proportion of state funding; the autonomy of institutions; and the place of market forces in higher education. However, they experience some common policy and management challenges, and have a shared interest in securing the financial sustainability of their institutions, as a means to deliver national policy goals cost-effectively.

The challenge for governments is to ensure that increasingly autonomous and market-driven institutions respond to public interest agendas, at national and regional levels, while also taking a greater responsibility for their own financial sustainability. The challenge for institutions is to manage a more complex portfolio of aims and funding; to differentiate themselves in an increasingly competitive environment; and to protect and maintain academic quality and their ability to deliver over the long term.

This report examines the conditions needed to secure such a financially sustainable future from the national (policy) and institutional (management) perspectives. It focuses on the big messages, which are relevant in most national and institutional contexts. It suggests that a new form of partnership is needed between institutions and the State, which supports increasingly autonomous universities in taking a more strategic view of their role. For their part, institutions need to ensure the quality of their governance and leadership, and to adopt some of the strategic financial management skills seen in the commercial sector.

The report includes a series of self-assessment questions that policy makers and institutions can use to check their response to these issues.

- 
1. Malcolm Skilbeck (2001), *The University Challenged – A Review of International Trends and Issues with Particular Reference to Ireland*, The Higher Education Authority, Dublin.
  2. Australia, England, Germany, Ireland, Japan, Netherlands, Sweden, USA. The eight national reports and the overall report are available on the IMHE website at: [www.oecd.org/edu/higher](http://www.oecd.org/edu/higher).

## TABLE OF CONTENTS

|   |    |
|---|----|
| ABSTRACT .....  | 3  |
| RESUME .....  | 4  |
| FOREWORD .....  | 5  |
| 1 THE PROJECT AND ITS OUTCOMES .....  | 8  |
| 1.1 The project.....  | 8  |
| 1.2 Different national systems.....   | 8  |
| 1.3 The focus of this report .....  | 9  |
| 2 PUBLIC GOALS AND INSTITUTIONAL ROLES .....  | 10 |
| 2.1 Introduction and policy background.....   | 10 |
| 2.2 The growing roles of HEIs .....   | 11 |
| 2.3 The new financing environment.....  | 13 |
| 2.4 The role of the market .....  | 18 |
| 2.5. Institutional autonomy and accountability .....                                  | 20 |
| 2.6. Summary – challenges for governments .....                                       | 24 |
| 3 TOWARDS FINANCIAL SUSTAINABILITY .....  | 26 |
| 3.1 Introduction .....  | 26 |
| 3.2 Conditions for financial sustainability .....                                     | 27 |
| 3.3 Developing an integrated institutional strategy .....                             | 28 |
| 3.4. Operating sustainably: pricing, cost recovery and income generation.....         | 34 |
| 3.5. Investing for a sustainable infrastructure .....                                 | 41 |
| 3.6. Risk management and dealing with financial crisis .....                          | 44 |
| 3.7. Governance, leadership and management .....                                      | 48 |
| 3.8. Summary – challenges for institutions .....                                      | 50 |
| APPENDIX 1 – SOME KEY FEATURES OF THE HE SYSTEMS IN THE PARTICIPATING COUNTRIES ..... | 52 |
| APPENDIX 2 – SOME CHARACTERISTICS OF NATIONAL SYSTEMS OF GOVERNANCE .....             | 53 |
| EXISTING OECD EDUCATION WORKING PAPERS .....  | 54 |
| RECENT OECD PUBLICATIONS OF RELEVANCE TO THIS WORKING PAPER.....                      | 54 |
| THE OECD EDUCATION WORKING PAPERS SERIES ON LINE.....                                 | 55 |
| <br><b>Boxes</b>  |    |
| Policy challenges – the roles of HEIs.....  | 13 |
| Policy challenges – public funding .....  | 17 |

|  |    |
|--|----|
| Case study: funding and governance in the United States .....              | 17 |
| Policy challenges – the market.....  | 20 |
| Policy challenges – autonomy and accountability .....                      | 23 |
| Case study: new National University Corporations in Japan .....            | 24 |
| Management challenges – institutional strategy .....                       | 33 |
| Management challenges – operating sustainably .....                        | 40 |
| Case study: full economic cost recovery and sustainability in England..... | 40 |
| Management challenges – investing in assets .....                          | 44 |
| Management challenges – risk management.....                               | 46 |
| Case study: Stichting Vangnet HBO .....                                    | 47 |



## 1 THE PROJECT AND ITS OUTCOMES

### 1.1 The project

During 2002 and 2003, the OECD Programme on Institutional Management in Higher Education (IMHE), jointly with the Higher Education Funding Council for England (HEFCE) has managed a project on financial management and governance of higher education institutions. The project examined strategic financial management needs in the changing policy and funding environment in higher education, with particular reference to the financial sustainability of institutions.

This report is aimed at policy makers and senior managers and governors in higher education who are concerned about the ability of higher education institutions to deliver educational goals in a sustainable way.

Eight countries participated in the project: Australia, England, Germany, Ireland, Japan, Netherlands, Sweden and the United States. In each country, a national author has produced a report on the higher education policy context and on the systems of governance and management of higher education with particular reference to their impact on the financial viability of higher education institutions. These national reports provide a valuable base of knowledge on the current status and changing objectives of policies, governance, funding, and management of higher education institutions in these countries.

The project was steered by a Task Group with representatives of the eight participating countries, the IMHE and HEFCE. The Task Group met on several occasions during 2002 and 2003 and the project concluded with a conference in January 2004 and the publication of this report.

### 1.2 Different national systems

Across the OECD, there are a wide variety of types of national higher education system. It is not the purpose of this report to describe these in detail – this is done in other OECD publications.<sup>3</sup> However, these differences are well illustrated by the eight countries that participated in this project. For example:

Size: The number of HEIs varies from 40-65 in Australia and Ireland, Netherlands and Sweden; 130 in England; 350 in Germany and 1 290 in Japan; to over 4 000 in the United States.<sup>4</sup>

Structure: Three participating countries have federal systems – Germany, Australia and the United States and these are each different in terms of the role of the State in higher education management. Two countries have intermediary funding bodies between the government and the institutions (England and Ireland).

---

3. See, for example, OECD (2003), “Changing Patterns of Governance in Higher Education”, *Education Policy Analysis 2003*, OECD, Paris, pp. 59-78.

4. These numbers of institutions are not strictly comparable because they include different types of institutions. However, they do show the wide diversity between countries.

|                         |   |
|-------------------------|---|
| Institution type:       | There is a very diverse range of institutions in most countries, with at least two dimensions to this. Research universities can differ significantly in their roles and relationships from vocational or technical institutions (notably in Ireland, Netherlands, Germany). Specialist colleges sometimes differ again. There is also a private/public dimension, which is present in most countries, but especially significant in Japan and the United States. |
| Institutional autonomy: | All institutions have a degree of autonomy over academic decisions and directions, but the extent of their independence in financial and managerial matters varies greatly. There are several dimensions to this, discussed later, but the range is from private universities, which only contract with the State, through to institutions that are effectively public bodies owned and controlled by the State.  |

These dimensions of difference are illustrated in Appendices 2 and 3. They have a significant bearing on the way HEIs relate to public goals and seek to manage their financial sustainability.

### **1.3 The focus of this report**

This report has been prepared on behalf of the Task Group by Dr. Jim Port of J M Consulting. The report addresses two main issues that are inter-linked and which each have both a national (policy) dimension and an institutional (management) dimension.

The policy challenge is about how, at a time of diminished state funding and increasing institutional autonomy, governments can achieve their policy aims through the higher education system without the ability to direct institutions and without threatening their financial sustainability. This is the main focus of Chapter 2.

The main challenge for those who lead, govern and manage higher education institutions is how to manage the institution to secure its financial and academic sustainability at a time when the funding and policy environment is becoming much more competitive and challenging. This is the focus of Chapter 3.

Given the diversity illustrated above, it would be inappropriate to seek a “one size fits all” approach to securing financial sustainability. The focus of this report is on the principles rather than the details. It addresses the “big messages” that the Task Group believe are relevant across a wide range of different national and institutional circumstances.

## 2 PUBLIC GOALS AND INSTITUTIONAL ROLES

The policy challenge: the State is providing relatively less of the core funding of higher education institutions, and institutional autonomy and market pressures are increasing. How can governments still ensure that their policy aims for higher education are achieved without creating tensions that may threaten the sustainability of institutions?

### 2.1 Introduction and policy background

This chapter reviews the policy and funding situation in participating countries and its implications for the management of their higher education systems. It raises a series of questions for policy makers as they consider how to ensure an effective and financially sustainable national system of higher education.

This chapter focuses on four inter-related policy and funding areas:

- the roles of higher education institutions
- the financing environment
- the role of the market
- institutional autonomy and accountability

#### *The central issue*

Policy in higher education is in a state of change. Fundamental reviews occurred in most of the participating countries during this study. There are several drivers of reform, but in many countries higher education institutions have experienced a combination of circumstances that have impacted on their financial sustainability:

- rapid growth in the volume of higher education activity (*i.e.* student numbers and research) and in the complexity of this activity (*e.g.* new types of student);
- core funding from the State has not kept pace with this growth;
- investment in institutional infrastructure has fallen below the levels needed for sustainability;
- public agendas have become more complex and demanding and institutions need to respond to a broader range of stakeholders and interests;
- institutions are exposed to increasing market pressures and are required to differentiate themselves to succeed in a more competitive environment.

These pressures have led to policies to broaden the base of funding for institutions; to seek collaboration and efficiency gains; to encourage greater commercial and market response; to seek greater financial contributions from students.

At the same time, governments increasingly need higher education institutions to help them to achieve a number of social and economic goals, but they have fewer direct policy mechanisms to ensure this (as State funding diminishes and institutions gain greater autonomy).

As a result of these pressures higher education institutions are facing some new policy and management challenges. Some are at risk of “over-trading” and their financial viability is an issue. Others are living off past investment and may find their quality, reputation and future capability are threatened if they cannot create more financial headroom.

## **2.2 The growing roles of HEIs**

The national reports show higher education institutions at the centre of a number of government policies with social and economic aims, as well as educational ones. There are two main elements to the growing roles of HEIs: a growth in the volume of their activity and a broadening of the roles they undertake and of their contribution to society. This has given rise to considerable institutional differentiation.

### ***2.2.1 Growth in student numbers and research activity***

The higher education sector expanded rapidly in the 1980s and 1990s with increasing student participation rates. This has also produced a very differentiated student body and the cost structure of educational delivery is therefore changing. In many countries this growth in student numbers has now plateaued and in some, numbers are actually forecast to decline.

In Ireland and Sweden, student numbers almost doubled between 1990 and 2000.

In other countries, including Japan, the Netherlands and Germany, growth over this decade was relatively modest.

The main growth occurred earlier in Germany, with an increase of 46% in first year students between 1980 and 1990, compared with an increase of 5% between 1990 and 1999.

In Japan, student enrolments peaked in the early 1990s. However, the number of school-leavers is predicted to decline by 40% between 1992 and 2010, which is likely to lead to the possibility of closure for some private institutions.

This period has also seen a significant growth in research activity by universities, again with a substantial differentiation in terms of depth and focus.

In England, university research grant and contract income increased by approximately 60% over the decade 1990-2000.

In Australia, a five-year innovation statement – Backing Australia's Ability – was launched in 2001, providing AUD 1.5 billion to research and research infrastructure in the sector.

### **2.2.2 Broadening of HEI roles and contributions**

The national reports emphasise the growing importance of higher education in national policy, with governments looking to their higher education systems to help to deliver a number of national policy goals. These goals include:

- up-skilling the population and Life-long learning;
- social inclusion, widening participation, citizenship skills;
- economic development;
- regional policy;
- cultural development and regeneration;
- knowledge-based developments;
- research and development, especially in science, technology and medicine.

Some of the policy thinking behind these developments is illustrated below.

Higher education institutions have a central role within the modern knowledge society to identify political, social, economic, environmental and cultural needs and to solve corresponding problems. They create and impart new knowledge. Thus, they are an important factor to preserve and increase the welfare of society and to save its basis of life. (Germany)

Our society's principal weapon in ensuring that we master change, rather than surrendering to it, is our education system, and principally our Universities. In this increasingly competitive economic world... effective working relationships between universities and private and public sectors are increasingly significant. UK government (January 2003) White Paper.

Education and research are driving forces for the modernisation and renewal of society. Education is taking on increasingly central importance for prosperity, growth and development. Investment in education and at all levels paves the way to the information society. Education broadens our outlook, contributes to personal development and better equips us to meet the major challenges of our time and the rapid changes in living conditions we are now witnessing. (Government bill "The Open University", Sweden 2001).

These countries have set targets for increasing the penetration of higher education into society. In Germany, the Bundesregierung wants to increase the proportion of higher education enrolments to 40%; in England the government wants 50% of young people to have an experience of HE by 2010; in Sweden the government wants 50% of people born in a particular year to enter HE by the age of 25.

#### *More complexity*

Institutions have also experienced an increase in the complexity of the work they do and in the expectations that their students and stakeholders have of them. They are in the knowledge business, which is a competitive and fast-moving sector.

**New sources of income.** Many institutions have experienced a relative fall in their "core" public funding, sometimes offset by new public contract income *e.g.* to deliver education and training

for teachers and health professionals. This contract income is often less secure than core funding and could decline as a result of a change in policy, or new competitors.

**A broader customer base brings new external scrutiny and new risks.** New roles and customers bring new accountability requirements linked to society's greater expectations of the social role of universities. External scrutiny and assessment can have a direct impact on the income and financial health of institutions.

**Expanding the role of academics.** Many academics are now expected to be active in commercial activity, consultancy, advisory work and other forms of interaction with society. This can be valuable for their professional development and also for remuneration and job satisfaction. However, it increases pressures on their time and may require training and development and new forms of infrastructure and support.

**Higher student expectations.** Students are more demanding consumers. They expect to receive a proper guidance and education suited to their (sometimes very different) needs. Many are paying tuition fees and this increases their expectations of the quality of service and facilities they should receive. These expectations are fuelled by league tables published in the media to help students to compare institutions.

#### **Policy challenges – the roles of HEIs**

- a. Has growth in income and a broader customer base made institutions more or less secure?
- b. Are they at risk of becoming distracted from their core business – perhaps too associated with political and economic goals that may not be as widely respected in society as academic scholarship and student learning? Should they stick more closely to their original academic mission?
- c. Are they equipped to manage this wider range of activity? Are governance and management structures robust enough and sufficiently flexible and commercially aware? Are infrastructure and resourcing adequate?

## **2.3 The new financing environment**

A number of developments have changed the balance of financing of higher education institutions. Policy reviews of financing, including student finance, are current in many countries.

### **2.3.1 Trends in State funding**

In the last century, most higher education came to be delivered by institutions effectively owned and/or funded by the State. Even if these were relatively autonomous bodies, most still looked to government for investment and recurrent funding, and government effectively controlled most assets and financial decisions because it set the policy and financial framework within which they operated.

Notable exceptions to this picture are the private universities (which are very significant in the United States and Japan amongst the participating countries). However, the overall contribution of the private sector is small in most countries. The extent of public funding of higher education is shown in Appendix 2.

While the State remains the dominant or core funder of higher education, in many countries the proportion of institutional funding from the State has now declined.

In Australia Commonwealth grants (excluding HECS) accounted for 69% of revenue in the higher education sector in 1990; by 1999 this had fallen to 47%; and by 2001 to 43% of revenues.

In the United States, government revenue fell from 42% of all revenue to higher education in 1989/90 to 38% in 1995/96 and may have declined even more rapidly since then. (Student tuition and fees at state institutions have increased by more than 25% in the last five years).

In some cases there has been a decline in the amount of state funding per student (usually because student numbers have grown faster than funding in real terms). Sometimes, institutions have been encouraged to recruit additional students with only marginal public funding to support them. Often, government funding has risen at a lower rate than employment costs and other inflation. The impact of these factors has been a reduction in the overall unit of resource – government funding for teaching per student. In some cases, there was scope to increase efficiency, but this has also put pressure on the quality of delivery and financial security of institutions. This might affect other policy objectives such as widening participation.

In England higher education funding per student reduced by 36% in real terms between 1989 and 1997 and although this trend has now been reversed, planned funding for 2003-04 is still 33% below the 1989 level in real terms.

In Sweden, the revenue per student fell by 17% in real terms, if compared with the central government consumption index, between 1994 and 2001. In recent years the revenue per student in some fields of study has been specially augmented.

In Ireland, the cash value of average state funding per student increased by less than 4% between 1989/90 and 1999/2000 – a significant decrease in real terms.

In the Netherlands a recent report<sup>1</sup> on the sustainability of institutions showed a substantial deficit in the financial assets needed to maintain the real estate. In addition it showed that the attrition rates over the last years have worsened. The authors of the study challenge the policy aims of the Dutch Government, which make mention of widening participation and lower attrition rates.

1. Stichting Vangnet HBO (2003), *Zuinig op de toekomst*, Stichting Vangnet HBO, Amsterdam.

### **2.3.2 The growth of research and other externally-funded activity**

The growth of research is normally an academic objective, but it has also been encouraged by governments who wish to exploit the benefits of R&D drawn from the base of university research.

This combination of drivers has led institutions to seek and accept non-core funding for research from a diverse range of sources, some on a marginal-costs basis. As well as from core government funds, research is funded by other ministries and public bodies; by private industry; by charities and foundations; and by international organisations. Many of these bodies fund only direct project costs, expecting the infrastructure for research to be provided by the institutions themselves.

In Sweden, external sources now account for 54% of research funding, compared to 34% in the 1980s.

In the Netherlands, state funding for research is decreasing, with the research-intensive universities becoming increasingly dependent on other sources of revenue, such as enterprises, governmental institutions, EU programmes and charities.

For some institutions, the rapid growth in project or activity funding for research has outstripped the level of investment in the core research infrastructure. This has led to problems of decaying infrastructure and an imbalance between investment and consumption. These are both symptoms of a problem of overtrading, which has been recognised by some governments and is discussed in more detail in Chapter 3.

There has also been a growth in “other” activity related to the knowledge base of HEIs. Knowledge transfer activity includes contract research, testing, consultancy and advisory services, exploitation of intellectual property (licensing, spin-out companies, etc.). This is seen as an important contribution to economic growth by many governments and as a source of income, staff development and other benefits by institutions. However, few are well equipped to manage such activity, which needs a similar financial and managerial environment to a commercial business (risk-taking, rapid response, ability to invest and disinvest in staff and services). While a few institutions have been very successful, for most such activity has added little to their income or financial security and it can expose them to new financial risks.

### ***2.3.3 Funding mechanisms***

Funding can be delivered to institutions in different ways. Institutions prefer longer-term block grants, which they can use at their discretion and which provide a stable basis for planning. Governments increasingly prefer targeted and short-term initiatives and mechanisms that require institutions to make matching financial contributions or to deliver specific outputs. Such methods include:

- targeted initiatives/incentive funding
- capital grants
- performance related/contingent funding
- benchmark funding
- competitive bids
- marginal-cost funding

Requiring institutions to provide matching funds can ensure institutions are committed to projects, but it can also lead to deferral of necessary spending in other areas. Bidding schemes create an element of competition that can lead to good value for the taxpayer, but institutions incur costs associated with preparing bids that may never be recovered. The provision of separate capital grants can risk creating an institutional dependency on this source of funding. This is particularly important in respect of investment in infrastructure, which is one of the critical areas for financial sustainability. All such targeted schemes can make strategic planning by institutions more difficult if they distort institutional priorities and encourage opportunistic behaviour. This may not be in the HEI’s best interests – or its stakeholders’. Well-designed programmes can avoid these dangers.



In Ireland the Programme for Research in Third Level Institutions (PRTLII) and the Technological Sector Research Initiative have supported institutions in developing a strategic approach to their research and encouraged greater levels of collaboration with each other and with industry. PRTLII, is managed by the HEA and has a budget in excess of EUR 600 million. It builds the capacity for advanced research by providing integrated financial support for institutional strategies, programmes and infrastructure. The proposals are evaluated under three criteria – strategic planning (including inter-institutional collaboration), research quality and the impact of the research strategy and programmes in improving the quality of teaching in the proposing institution. One of the requirements is that institutions prepare and submit strategies for research and identify institutional priorities.

#### ***2.3.4 Impacts on institutions***

These funding pressures, coupled with other factors, have led to pressure on the sustainability of HEIs, which is manifested in a number of ways:

- closure of academic departments and pressures on some shortage subjects;
- increasing student: staff ratios, pressures on staff and on institutions' ability to recruit and retain students;
- pressures on physical infrastructure, especially buildings and equipment;
- rationalisation of provision – *e.g.* closure or merger of small institutions.

Examples are common across the participating countries. They should not all be seen as negative developments. Some institutions were unaware of their own costs, or maintaining provision, which was not of high quality or in high demand. Some of these changes can be seen as part of a process of improved efficiency. However, these trends have also left many institutions less financially secure and they have put pressures on academic staff, which could damage quality and future productivity.

#### ***2.3.5 National reviews of the financing of higher education***

As a result of these pressures, many of the countries participating in the study have carried out major reviews of higher education funding in the recent past. A number of these national policy reviews have reached broadly similar conclusions that:

- If unconstrained, the costs of higher education are likely to continue to grow at a faster rate than the state funding available to support it.
- Universities need a broader range of income sources.
- Industry and students, as major beneficiaries of higher education, should contribute to its costs.
- Universities need to become more efficient in their use of resources.
- Universities need to be able to manage their finances and assets on a more strategic basis taking greater account of the needs of long-term sustainability.

### Policy challenges – public funding

- a. Who is ultimately responsible for the sustainability of the higher education base? Is it the State or the HEIs themselves? Is the public funding appropriate to maintain the long-term productive capacity of the HE system?
- b. How does the government secure the outputs it wants and what incentives does it need to provide to do so? Are the right incentives given to institutions?
- c. Do the funding mechanisms make it easier or more difficult for institutions to take a responsible long-term view of their investment needs?

### Case study: funding and governance in the United States

In the United States, the Federal government has a role of “overseer of the public interest”, but is “impartial about providers’ ownership and control”. State governments by contrast act through direct subsidy of institutions and so can be described as both “overseer” and also “provider of higher education services”.

Federal funding to institutions is either through students in the form of student financial assistance or restricted funding for research and other purposes. State funding and student tuition and fees tend to be the major revenues that can be used at the discretion of the institution. States differ significantly in the shares of funding of public institutions borne by state and local governments, students and other sources. Public institutions in most states depend heavily on non-state sources.

The distinction between *governance* and *coordination* is fundamental to an understanding of the higher education structures that exist in each state and the assignment of responsibility for decision-making on budget/financing and for institutional financial management. Some structures are established to *govern institutions* while others are established to *coordinate the state postsecondary education system or sectors* (e.g. a system of locally governed community colleges).

All states assign responsibility for governing public colleges and universities to boards most often composed of a majority of lay citizens representing the public interest. Their responsibilities are similar to those of boards of directors for non-profit corporations. Public institution governing boards were modelled after the lay boards of private colleges and universities, but most often govern several public institutions. 65% of the students in American public postsecondary education attend institutions whose governing boards cover multiple campuses.

Throughout the United States, a gradual shift is taking place in the basic assumptions about the role of government in higher education. The changes are by no means being implemented consistently across the states. Some States remain firmly grounded in the practices of the past – especially in the regulatory practices of the 1960s and 1970s when many of the state higher education agencies were formed. Others are moving step-by-step from policies aimed at “coordinating higher education” to a new leadership stance in which the policy tools of finance, accountability and regulation are being used to align the State’s capacity with public priorities.

For example, the principle underlying Kentucky’s approach to accountability is that a *viable state-supported institution* is an institution that is accomplishing its mission and serving public purposes. The state focus is on the *ends to be achieved (what)*; responsibility for *how to achieve these ends* is clearly delegated to the institutional governing boards.

North Dakota, by contrast, has one of the most centralised state funding systems in the United States, with a single statewide governing board appointed to cover all institutions in North Dakota. State funding includes base funding, benchmark funding and incentive funding. The Senate Bill 2003 provided increased flexibility in the use of state funds to both individual institutions and the State Board of Higher Education, who in turn shifted their vision and mission to focus on the future of North Dakota. The aim was to provide the universities with “flexibility with accountability”.

In summary, state financing policy is shifting from a traditional focus on institutional viability – on building and

maintaining institutional capacity – to a focus on targeted funding policies to utilise institutional capacity to achieve state purposes. Institutional viability remains an important state funding priority – not as an end in itself, but as a means for maintaining capacity to address state priorities.

## **2.4 The role of the market**

Market forces are of increasing importance in the participating countries. However, higher education is not a pure market activity and the extent to which it is relevant to talk in terms of the market varies between participating countries.

Market forces in higher education are not only relevant to students; they also operate in institutional competition for staff, for research contracts, for special initiative funds, for commercial contracts, for government investment. In general, the more institutions are exposed to market opportunities and market risks, the more they need the autonomy to respond in a strategic manner.

State funding of higher education in the United States is particularly vulnerable to economic conditions, since States (who provide the majority of public funds) cannot run budget deficits; when there is an economic downturn; this feeds through into education budgets relatively quickly. Typically, institutions have to increase tuition fees to bridge the shortfall.

The government's ability to assess societal needs and implement them has been increasingly questioned and challenged... Government will no longer be the primary or sole agent intermediating the exchange between society and the university (Japan).

### *International competition*

All countries are involved in an internationalisation of higher education. This introduces competition for academic staff, for research funding and for overseas students. A few countries (notably the United States, Australia and England) have been very active in seeking to attract overseas students as a way of earning exports and income for higher education institutions. Others wish to do more in this field.

In order to facilitate Irish institutions in maximising the benefits from participation in international education, the Higher Education Authority this year published a study "Provision of Undergraduate and Taught Postgraduate Education to Overseas Students in Ireland", examining the strategic positioning of Irish higher education in relation to international education. This study proposes the establishment of a new "Strategy Board for International Education". The aim of the Board will be to develop and enhance the education of overseas students in Ireland by providing leadership, a focal point and coordination.

### *Supply and demand*

The role of market forces in domestic higher education depends on a number of factors, including how far institutions are able to compete for students and the degree to which it is normal for students to study away from home. Some countries have used market forces as a mechanism to increase efficiency and to increase institutions' responsiveness to students and other stakeholders. In others, the market is seen as less relevant and greater emphasis is placed on governance structures to represent the needs of the public interest. In Australia, the government's 2003 reform package "Our Universities: Backing Australia's Future" will partially deregulate the HE market and give institutions greater capacity to generate non-government revenue.

### *Limitations to the role of the market*

The market may have unintended consequences in driving all institutions to adopt similar strategies, at the expense of desirable diversity. This is especially a problem if strong financial incentives align with policy or academic aspirations.

In England, it is recognised that recent funding and policy pressures may have acted against institutional diversity. The 2003 White Paper acknowledges that "institutions have in large measure been driven towards greater involvement in research by the incentives in the funding mechanisms and by the criteria for being awarded the status of a university (which helps them recruit students)... We need to make sure that our system recognises and celebrates different missions properly."

The market cannot provide the long-term view or protect the interests of services or stakeholders where there is no real competition (a market failure). In the area of social policy objectives, governments have to provide financial incentives to achieve their goals and they cannot necessarily rely on competition to ensure efficiency or effectiveness.

**Policy challenges – the market**

- a. How far does the State wish to allow HEIs to take advantage of market forces? What benefits and risks does this bring?
- b. Is there a danger that market forces will operate against longer-term interests and social goals in higher education? How can governments deal with such areas of market failure without losing the benefits of appropriate competition?
- c. Are there areas that are strategically important to the nation and therefore justify protection?

## **2.5 Institutional autonomy and accountability**

There is a trend in many of the participating countries towards greater autonomy of institutions. This is partly driven by the factors discussed above (*i.e.* the broader roles of universities, relatively reduced core funding and increasing market pressures). Some national reports identify institutional autonomy as an objective of government policy. We are concerned here with autonomy of management and strategy, not academic freedom in matters of teaching and research.

Accountability (in the policy sense) is a necessary corollary of autonomy. The factors that drive in the direction of autonomy also make it necessary to establish new mechanisms to ensure that institutions are responsive to the national and regional public interest; and to the needs of different stakeholder groups.

### **2.5.1 Dimensions of autonomy**

The national reports reveal differences in the status of institutions in terms of their financial and managerial autonomy. These vary both within countries (*e.g.* between different types of HE institutions) and between countries. Appendix 3 shows an indicative categorisation of five key degrees of freedom that institutions may enjoy:

**Legal status** (which varies from being fully part of the State, to a private corporation)

**Strategic direction** (how far does the institution influence or control its own strategic plans and objectives?).

**Employment of staff** (varies from staff being civil servants, employed by the relevant ministry, to institution employees with no State involvement)

**Ownership of assets** (ranges from the State owning and controlling assets, through to full institutional control)

**Sources of funding and commercial freedom** (varies from wholly core-funded through to institutions that are significantly contract-funded and generate and retain surpluses and reserves for future investment).

There is a wide range of experience in the participating countries and this could be mapped (as a self-assessment exercise) onto the matrix in Appendix 3. A similar classification comparing most of the participating countries is included in “Changing Patterns of Governance” in Education Policy Analysis OECD 2003.

### ***2.5.2 The relationship between institutions and the State***

The relationships between institutions and the State vary widely across the participating countries. The State can have one or more of the following roles:

|             |   |
|-------------|---|
| Owner       | (owns assets, employs staff and is wholly responsible for investment and bearing risks)                   |
| Core funder | (provides major part of funding and takes a significant responsibility for investment and risks)          |
| Planner     | (approves mission and strategic plans and so shares in responsibility for investment needs and risk)      |
| Partner     | (works jointly with HEI so shares responsibilities and consults on plans and policies)                    |
| Customer    | (purchases services – and if a strategic purchaser may share some responsibility for investment and risk) |
| Regulator   | (regulates quality and performance).  |

In practice, the State often has a combination of these roles, which is changing in different systems, but generally in the direction of increasing institutional autonomy.

In Sweden in the 1990s there was a shift in the division of roles and responsibilities of the government and institutions. These can now be clearly defined as:

“The Riksdag and Government decide on objectives and specify the results required, *i.e.* to conduct management by objectives and results. The higher education institutions ensure that activities are carried out in the best possible manner. Management by objectives and results thus aims to delegate responsibilities and reduce detailed control of higher education institutions’ activities while increasing requirements to report results.”

#### *The parent body relationship*

The owner/core funder relationship was the common model in the more centralised systems of higher education in the last century. In it, the State could be described as the parent body to the education institution. The parent generally owns assets, it determines the main strategies and objectives of the institution and it provides the major part of the funding (usually in the form of budgets) for the main activity. The parent also accepts implicitly the responsibility for the viability of institutions. This has practical impact in the need to provide capital for investment when required; and to bear any risks (costs of restructuring or redundancy of staff for example).

However, the national reports show that this relationship is increasingly questioned and that HE systems in several of the participating countries are moving away from this as the predominant model. Factors driving this trend include:

- Most governments want institutions to take greater responsibility for their own future and to generate alternative sources of income. A dependency culture can develop when institutions do not take responsibility for their financial viability.

- It is difficult for governments to respond to market forces across a large and diverse group of institutions.
- The decline in the relative share of state funding for many institutions.

#### *Partner and customer relationships*

The partner and customer models are becoming more important in several countries. They involve the State in accepting greater autonomy of institutions and working with them, rather than directing them. The education ministry becomes one of several funders, albeit one with a particular commitment to the HE sector.

The essence of a partnership relationship is trust. The State cannot directly manage delivery of policy. It cannot guarantee that institutions will share its policy aims. It may need to share more information with HEIs and to engage them in a process of consultation and debate to achieve this. It can pay for delivery at a price that is attractive to the HEIs, but this becomes closer to a contractual than a core funding relationship. The State may adopt various funding mechanisms to give incentives to institutions to support particular objectives (see Section 2.3).

In some German *Länder*, **higher education pacts (frame-contracts)** have been concluded between the *Land* as the responsible body for higher education and the higher education institutions. The contracts stipulate the allocation of the negotiated budget sum for the validity period (usually five or ten years) and fix budget pledges during this period – although the public budget might be shrinking in general. The aim is to give the institutions the required planning security for several years.

Contracts or pacts at *Länder* level are often supplemented by target agreements with the individual institutions that fix the basic conditions for the further development of the institutions associated with the essential resources. ... Sometimes, performance figures are agreed upon in the target negotiations, if the university's funding is widely dependent on fulfilling these objectives..."

#### *Role of buffer bodies*

In some countries, the government-institution relationship is moderated by the existence of intermediary bodies such as the Higher Education Funding Council for England (HEFCE) and the Higher Education Authority (HEA) in Ireland. The role of these bodies is to provide a non-political mechanism for allocating funding between institutions; to promote good management practice; and to provide advice to government on the needs of the higher education sector.

A different model is that of Vangnet in the Netherlands, which is not a funding body, but acts as an external supervisor and assessor of financial viability of the universities of professional education (HBOs). This has permitted a more arms' length relationship with the Ministry of Education and hence greater freedom for these institutions. This is described as a case study in Chapter 3.

#### **2.5.3 The demands of accountability**

Several national reports highlight the burdens that accountability can bring to institutions. These include:

- pressures to provide information required by government, but which is not already prepared or needed in the institution;

- governments add new accountability requirements in areas like quality, access, risk assessment, health and safety, human resource development;
- some institutions experience multiple accountability requirements from a range of different ministries and public bodies.

The cumulative effect of these steps may reduce the real responsibility of HEIs by imposing overlapping or un-coordinated systems of accountability.

The Australian report notes:

“It may seem ironic that accountability requirements on universities are on the increase while the proportion of their revenue from government sources is decreasing.”

The Australian reforms proposed in 2003 will create a new accountability framework for institutions based on a more strategic bilateral engagement with each institution underpinned by an Institution Assessment Framework that clearly articulates the Commonwealth’s accountability requirements. The Framework has four principal elements:

- organisational sustainability
- achievements in higher education provision
- quality of outcomes
- compliance

The Framework produces a systematic across-the-board assessment of institutional achievements, performance and compliance based on quantitative data and qualitative information from universities and external sources.

The Australian reform sets accountability in a broader policy context. Policy accountability should be a positive expression of the partnership between institutions and the State and of institutions’ commitment to support the national policy and public interests. Robust mechanisms to ensure policy accountability are necessary for the greater autonomy of institutions. Transparency about goals and performance are important here. Institutional governance has an important role to play. This is discussed in Chapter 3.

#### **Policy challenges – autonomy and accountability**

- a. How is the relationship between the State and institutions changing? Is it clear where the responsibility for risk and investment lies? Are the processes for funding, monitoring and accountability appropriate to this relationship?
- b. Do HEIs have the autonomy they need to respond to the policy requirements of government and to market pressures?
- c. Does the system have adequate mechanisms to ensure that the public interest is represented as institutions become more autonomous and driven by their own strategic agendas?



### **Case study: new National University Corporations in Japan**

Japan's higher education system comprises both public and private sectors. The public sector consists of the National Universities, which are established by the national government, and Local Public Universities, which are established by prefectures and other local governments. While the private institutions enrol by far the majority of students, accounting for three-quarters of undergraduates, the national institutions play significant roles in research and postgraduate education.

Both national and private institutions are faced with pressures for change. Private institutions will have to respond to the challenge of the declining number of eighteen-year olds in the first decade of the 21st century.

From the perspective of the restructuring the Japanese economy and society for the coming age, reshaping the national universities assumes particular importance. The national government has been considering radical changes in the institutional basis of national universities, including their legal and financial foundations. In July of 2003 "National University Corporation Law" was enacted to shift the national universities from facilities of the state into more independent forms with legal personalities. On April 1st of 2004 each of the former national universities will become a "National University Corporation". The National University Corporations will own the lands and buildings of the universities. Staff members will no longer be civil servants.

The reform is intended to enhance autonomy and relax regulations in terms of budget, organisational structure and personnel of national universities. It should lead to greater room for discretion and corresponding responsibility for each institution. The new Corporations remain "national" in the sense that the state remains responsible for their functions, providing the major part of the funds that they need through "block grants", which can be used at the discretion of each university without designated applications. It will be also possible to carry the grants over to subsequent years. For facilities of national universities, "capital development funds" will be allocated separately.

In the National University Corporation, the President, as head of the organisation, shall make final decisions, assume ultimate responsibility and represent the university and corporation. Presidents are expected to show strong leadership and management skills while taking into account consensus within their university. This structure of management aims at establishing a dynamic management framework centred on the President and open to society.

The goals of this far-reaching reform were described in the following three ways:

1. increased competitiveness in research and education;
2. enhanced accountability together with introduction of competition; and
3. strategic and functional management of universities.

The universities will become more autonomous in their management and the government will put more emphasis on ensuring accountability for results through setting goals and evaluating achievements rather than controlling management processes. This change can be described as a move from "from regulation in advance to checks on the results". Accordingly, a more competitive environment will be fostered. At the institutional level, more management techniques originating in the private sector will be introduced into national universities to make their management more dynamic and strategic. These changes are expected to encourage national universities to revitalise their organisation and management, and raise the quality of education and research.

## **2.6 Summary – challenges for governments**

This chapter has identified policy challenges in four main areas; the growing roles of HEIs; pressures on public funding; the increasing influence of the market; and a general trend towards increasing institutional autonomy.

There is a debate in many countries about the governance and management of higher education, and the relationship of institutions to the State. Many consider that the “grip of the State” has to be relaxed so that institutions can determine their own strategies and take more responsibility for their own financial sustainability. Corresponding changes in governance and accountability of higher education institutions are needed to support this changed relationship. This process has reached different points in each of the participating countries, but there is a common direction of travel.

The result of this process is that governments are less clearly seen as the “sole owner and core funder” of HEIs and so their ability to ensure policy objectives and financial sustainability becomes less direct.

This combination of factors leads to a number of challenges for policy-makers, including:

- How can they ensure that increasingly autonomous institutions will deliver the government’s education and social policy agenda?
- How can they ensure that financial incentives introduced for policy purposes do not cause HEIs to act sub-optimally – reducing diversity and responsibility and perhaps threatening their own financial sustainability?
- How can they ensure that the public interest is adequately represented?
- How can they reduce the risk that a more autonomous and market-driven university system will become financially unstable and make further demands on the State if institutions get into difficulties?

There is no single right way to address these complex interactions of policy and practice in the higher education sector. The eight participating countries demonstrate that different approaches can work in different cultural and policy contexts, and that some policy challenges still remain to be resolved. It also appears that methods that worked in the past now need to be adapted to a new policy environment.

The corresponding challenges for the management of institutions are discussed in the next chapter.

### 3 TOWARDS FINANCIAL SUSTAINABILITY

The management challenge: institutions have to manage a more complex portfolio of aims and funding, and to differentiate themselves in an increasingly competitive environment. How can they protect their ability to deliver their core academic outcomes over the long term?

#### 3.1 Introduction

This chapter discusses the aspects of institutional governance and strategic financial management, which are most relevant to maintaining the financial sustainability of institutions. The main issues covered in this chapter are:

- conditions for financial sustainability;
- developing an integrated institutional strategy;
- pricing, cost recovery and income generation;
- planning and investing for sustainability;
- risk assessment and dealing with potential failure;
- governance, leadership and management.

The focus is on the strategic issues, which are generic to a wide range of national and institutional circumstances. These are addressed in the context outlined in Chapter 2, including the trend in many of the participating countries in the direction of more autonomous and market-led higher education institutions, which need a more strategic and comprehensive set of financial policies and tools.

Most HEIs are not commercial businesses, although many are becoming more business-like. In some respects they are more complex than commercial businesses and have to be managed differently. The differences are probably seen most acutely in the more traditional research universities. These include some or all of the following features:

- The institution is driven by an academic vision, which is not directly related to financial goals.
- It has an ethos of public service and social responsibility that leads it to provide services which might not be regarded as financially viable in business.
- Academic staff have a degree of autonomy about the direction and focus of their work (especially research).
- Related to this, institutions often lack the ability (and perhaps the will) to manage their costs and performance to the extent that is normal in business.

- Governance and management often depend on committed individuals, rather than professional managers. Senior posts may be held by academic staff appointed by their peers, often on a part-time or rotating basis.

These and other characteristics lead to a management culture that is significantly different from a commercial business. These differences are more or less marked in different types of institution and they are slowly changing under the influences noted in Chapter 2. Some characteristics of this evolution are shown below.

| Traditional university   | “Business-like” HEI      |
|--------------------------|--------------------------|
| Supply-led               | Market-driven            |
| Reactive, resists change | Pro-active, strategic    |
| Depends on state funding | Portfolio financing      |
| Consuming assets         | Investing for the future |
| Administered             | Managed                  |
| Risk averse              | Manages a range of risks |

This is a simplification to illustrate a trend. These characteristics are not equally true of all types of institution. Nor are they changing to the same extent, or at the same speed in all countries. However, the direction of travel is common. This chapter should not be seen as a recipe for good financial management, equally applicable to all situations. It is rather an indication of a series of issues and an agenda for development, which will need to be interpreted in the light of local circumstances in each country and each institution.

### 3.2 Conditions for financial sustainability

For HEIs, financial sustainability can be defined along the following lines:

*An institution is being managed on a financially sustainable basis if it is recovering its full economic costs and is investing in its infrastructure (physical, human and intellectual) at a rate adequate to maintain the future productive capacity needed to deliver its strategic plan and to serve its students and other customers.*

This definition implies four key elements to managing for sustainability. These are discussed in the following sections:

- **Strategy:** the institution has a clear direction and the means to assess its future needs and risks and to measure its performance (Section 3.3).
- **Operating sustainably:** the institution is recovering costs and generating income to cover its costs on its normal operations (Section 3.4).
- **Investment:** it is investing at an appropriate level to maintain productive capacity (Section 3.5).
- **Risk management:** it is managing risk appropriately in relation to its strategy and is prepared to deal with potential financial problems (Section 3.6).

This definition has the advantage that it is possible to assess how well an institution is managing for its own sustainability by using a relatively simple indicator of the level of investment made, in accordance

with a strategic plan. Of course investment will fluctuate from year to year and it may be made either by the institution itself, or by the State on its behalf. The key indicator is that, over a reasonable period of years, there is consistent investment and this is being made at a level, and in a way that is related to the future needs of the institution.

It is significant to note that the survival of individual institutions is not necessarily a policy aim in all countries. Equally, financial viability is only one aspect of overall institutional sustainability that depends on academic vitality as well as on financial health. All governments would wish to have institutions that are both academically and financially healthy and sustainable.

### **3.3 Developing an integrated institutional strategy**

Every successful HEI needs a strategy, which identifies what it exists for and how it can add value to the work that it does. Where institutions are wholly owned by the State and serve a defined and stable market, strategic positioning may be of limited relevance as a management concern. However, as publicly funded bodies become more subject to financial constraints (and options) and to market pressures and risks, they increasingly adopt the planning techniques used in a business.

In Ireland, the central importance of university strategic planning is reflected in the Universities Act 1997, which imposes a statutory duty on university Governing Authorities to require their chief officer to prepare a strategic plan. The role of the HEA in relation to university strategic planning as set out in this legislation is to assist the universities, to review their plans and to publish a report on the outcome of the review. In its role of assisting the universities, the HEA jointly commissioned and published, with the Conferences of Heads of Irish Universities, a major review of International trends and issues in higher education with particular reference to Ireland by Malcolm Skilbeck, "The University Challenged". The publication of this report led to an extensive national debate over the appropriate role and aims of universities.

For many institutions, it is no longer appropriate to assume that their future role and position in their respective markets will remain as in the past (or that it will be driven solely by academic aspirations). It may have to change for a variety of reasons:

- It may no longer be affordable.
- It may not be compatible with government policy.
- Student or customer needs may change.
- New technology or techniques may influence the way education is delivered.
- There may be other more attractive opportunities for the institution.

Good financial management in the traditional public sector sense, while necessary, is not sufficient to deal with such challenges. It will not protect institutions from poor strategies, from market risks or from inadequate funding, (or from their own unrealistic plans). Nor will it help them adequately to position themselves to deal with the much broader range of commercial and other opportunities they now have.

Institutions also need to adopt some of the techniques of strategic financial management that are more common in the commercial sector.

However, an overly simple commercial model of financial management applied in a traditional research university may threaten the values and outputs of the institution. The techniques of financial management that are discussed in this report need to be applied in a way that respects and works with the academic nature of the institution. It is necessary to develop integrated financial and academic strategies for institutions in order to assure a sustainable future. The way this integration is achieved will depend on the circumstances of the institution, but it needs to respect two principles:

- The strategic plan cannot be solely academically or financially driven. It needs to bring the two sets of cultures and requirements together.
- Financial opportunities and risks arise primarily from the actions of the academic staff of the institution.

Adopting this approach requires an institutional debate about needs and objectives involving both academic and non-academic senior managers. It also means that senior academic managers are involved in financial strategy and that finance staff understand the academic processes and drivers of the institution.

This is about cultural change, as much as about management techniques.

### ***3.3.1 Strategic analysis***

Institutions need to take a conscious decision to review their strategic positioning and to adapt their strategies accordingly. Without this they can find themselves reacting to external pressures and dealing with change forced upon them.

Institutions need to ask themselves a number of strategic questions. Those related to students and academic markets might include:

- Are we competing regionally, nationally, internationally?
- Is our business teaching; world-class research; applied research, work with business and the community?
- Are our markets for students undergraduate; post-graduate; home (regional or national markets); overseas; on-campus; distance learning?
- In which areas are we a market leader?
- How do we compare with our competitors?
- Do we have a distinctive market niche?
- How secure is our student base?
- Are we too dependent on one or two key sources of funding?
- How are these factors likely to change over the next ten years?
- Should we be positioning ourselves differently, entering new markets or withdrawing from some of our existing activity?

There will be other sets of questions in other areas of strategy such as human resources, estates, learning resources, etc. The way these questions are posed and dealt with is important. There should be a proper institutional policy debate. This needs to involve a range of staff and to recognise that there will be some areas of tension to be resolved. Choices will have to be made and priorities agreed. Not all desirable activities will be affordable (and not all financially-viable activities are appropriate). Institutions may have to choose not to do some things. The outcome of such debates should be a strategic direction for the institution. This might be discussed with the stakeholders of the institution.

In England, It is clear that there is insufficient public funding to enable all HEIs to operate to international standards of excellence in all activities simultaneously. HEIs, therefore, need to focus on their strengths. As part of this focusing on strengths, the HEFCE concentrates on:

- trying to ensure that effective financial governance and management arrangements are in place, so that HEIs make the best use they can of the available funding;
- using funding incentives to influence the behaviour of HEIs;
- encouraging HEIs to focus on their areas of strength.

Many institutions use the techniques of strategic analysis that are familiar in business planning in commerce. Those which seem most relevant to universities include:

**Environmental/market analysis** (using techniques like PEST analysis, environmental scanning, scenario planning, etc.).

**Portfolio analysis** (*e.g.* the Boston matrix, product lifecycles).

**Internal analysis** (*e.g.* SWOT analysis of strengths and weaknesses).

These analysis techniques cannot tell the institution what to do, but they can help to ensure that issues are addressed systematically and they can help managers and staff to confront difficult issues. It is important not to get bogged down in detail (or in searching, unrealistically, for total evidence), but to focus on the most critical issues that can be influenced by the institution.

This process of strategic analysis should lead to development of institutional strategies for:

- a. the academic core business of the institution (teaching and learning, research, scholarship, etc.);
- b. the main resource areas (human resources, estates, Information systems, learning resources, student services, etc.);
- c. finance.

There is a debate about the way these strategies are related. Some institutions see finance as a resources area like the others listed under (b). Others see it as more central: perhaps the “glue which holds all the other strategies together”. The most important point is that these strategies must not be developed in isolation by the relevant experts. Each has to be integrated with the other strategies and understood and owned by the academic leaders of the institution.

### 3.3.2 Market strategy

Market strategy is an issue for any institution that needs to respond to external needs and demand. In the past, institutions may have been predominantly supply-led in the sense that the major influence on the services they offered was what their staff wished to provide (and what they had provided in the past) and cost recovery on these services was not a major consideration.

As institutions find themselves in a more market-style system, with greater competition, they need to develop new skills and approaches that include knowing how to analyse markets; defining appropriate market strategies; pricing their goods and services; managing their portfolio; knowing when to collaborate, when to compete, and when to withdraw from markets that are not viable for the institution.

At leadership level within the Irish institutions there is a growing awareness of an increasingly competitive and demanding environment, which is likely to lead to a growing level of differentiation between the institutions particularly, but not exclusively, in so far as research is concerned.

Another form of market pressure, in many countries, comes from systems of performance indicators and league tables, sometimes published in the national media, which compare institutions' performance and attractiveness to students. These can be potentially misleading when applied to a complex organisation like a university. However, they can be very influential with potential students and sponsors and show how institutions are perceived by the market.

### 3.3.3 The funding and financing portfolio

A further area to consider in strategic positioning is the total financial needs of the institution and the way these are to be secured. Key questions here would include:

- Are we content with the current size of the institution and the balance of activities and funding sources?
- Do we have an adequate critical mass and a strong enough financial base to enable us to plan and manage the institution strategically?
- Do we have enough uncommitted income and enough discretion over how the income is used, to permit academic and business developments?

In a state-owned and state-funded institution there may be relatively little scope for institutions to change these factors by themselves, but they still have a responsibility to identify needs and to make the case for investment and funding, and to adjust their strategies to the available funds.

In Sweden, higher education is almost wholly funded by the State with no tuition fees. Their government income is determined by student numbers and the results of their studies. The income intends to cover all costs, including buildings and investment costs.

The result of this system, which was introduced in 1993, is that HEIs' income is very highly sensitive to student numbers and that any fall in student numbers will also undermine the institution's ability to finance its infrastructure and investment. This may be felt to give very strong incentives to institutions to concentrate on areas where student demand is strongest. The system has mainly operated in a period of expansion, but in recent years it has led to problems for some institutions, which have had to cope with a decline in student demand. As the Swedish report puts it: "A decline in student demand – a reality even now in certain areas – has an immediate impact on the income of an



institution of higher education, while costs cannot be cut so quickly."

In the countries with more autonomous institutions and greater market pressures, institutions need to diversify their funding and to seek an optimum balance of activity and funding, as well as academic excellence. The funding and financing options available to institutions to help them to change their strategic financial positioning include:

- a. **Growth:** expand the size of the institution and achieve economies of scale and greater influence and financial flexibility by doing "more of the same".
- b. **Market repositioning:** change the profile and/or portfolio of disciplines offered; or seek a different image in terms of quality and levels of study as a means of differentiating from competitors.
- c. **Restructuring**, which might involve:
  - **Location and sites:** some institutions have closed campuses in one location and/or opened in others to respond to changes in market demand or competition, or to release funds from sale of assets.
  - **Organisation:** some institutions are restructuring into a small number of larger business units – *e.g.* linking small discipline-based departments into schools or faculties. These facilitate multi-disciplinary work and academic collaboration, but they also bring benefits of economies of scale in management and administration, and opportunities to generate additional income and opportunities.
  - **Staffing:** changing the balance of, for example, full and part-time staff, or of academic and technical or administrative support staff can be part of a strategy to improve cost recovery. Providing freedoms and incentives to staff can unlock new opportunities and income generation.
- d. **Income generation**, which is discussed in section 3.5, can include: knowledge transfer, sale of services and fundraising.

All the above strategies can generate cash, which institutions can use to invest in their own development. In most circumstances, this is a necessary condition of financial sustainability. Institutions that have the ability to generate cash can also attract external sources of financing, including: government capital grants, borrowing and partnership deals.

### ***3.3.4 Collaboration and strategic relationships***

Collaboration is important for academics, who often relate more closely to their discipline colleagues in other institutions than to different disciplines in their own institution. Collaboration in research is especially common, *e.g.* through sharing of equipment and facilities, and teams of staff from more than one institution working together, often internationally.

Structural collaboration and mergers have been pursued for a variety of different reasons, but often as a response to financial weakness of institutions or to diseconomies of scale. For example many small specialist colleges have been merged into universities during the past two decades.

In addition to research, collaboration between institutions can take a number of forms:

- a. **Validation or accreditation:** a university extends its degree-awarding powers to cover the programmes and students of another institution without such powers, usually for a fee.
- b. **Franchising:** a stronger, or better-established institution allows another to use its brand name, usually for a fee. The resulting growth in student numbers often creates progression opportunities and benefits both institutions.
- c. **Strategic alliance:** informal associations or legal joint ventures enable institutions to combine their strengths and market profiles to create a stronger entity able to offer a more comprehensive or higher quality range of services. Such relationships allow each institution to retain its independence, but to pool some sovereignty (*e.g.* through shared planning and marketing, or by creating joint institutes).
- d. **Merger:** is the most permanent form of collaboration. Many mergers are driven partly by an aim to increase financial sustainability and flexibility.

England has a relatively dense network of HEIs as a result of combining the former vocational (public sector) institutions with the pre 1992 universities. Recent financial pressures have led to renewed collaboration activity, for example:

- Former colleges of health were merged into universities as part of the process of bringing nursing education into mainstream higher education.
- Small specialist institutions (*e.g.* arts, agriculture) have merged into universities, often for reasons of financial security and economies of scale.
- Vocational universities have established partnership networks with groups of Further Education Colleges to provide progression opportunities for students into higher education and to secure their student markets.
- Some institutions have formed federal groupings that collaborate on joint marketing and share some aspects of planning and administration.
- In a few cases, large secure institutions have merged. For example, merger of the two research universities in Manchester will create a new “super-university” potentially able to compete on the world stage. The case for merger was based on the gain in critical mass in key research areas and hence improved financial performance.

#### Management challenges – institutional strategy

- a. Do we have a clear view of our strategic positioning and of changing supply and demand factors in our main markets; including the nature of the competition we face; and opportunities or threats for the institution?
- b. Have we identified our areas of strength and do our plans enable us to develop and exploit these? Are we investing appropriately to ensure that we retain our market strength in the areas where we are a leader?
- c. How secure are our main sources of income? Is our income base adequate for the strategy and sustainable in our operating environment?
- d. Are we exploiting opportunities for collaboration and strategic change that could further strengthen our

position?

- e. Do leading academics own the financial and business strategy and objectives? Are our strategies properly integrated? Are academic strategies for teaching, research, etc. informed by market and cost data and the institution's agreed strategic positioning?

### 3.4 Operating sustainably: pricing, cost recovery and income generation

Institutions need to ensure that their core operations are funded on a sustainable basis. Without this, they will require continuing external support and their ability to invest for the longer term may be threatened.

#### 3.4.1 Pricing

Price is a key tool in sustainable trading for a commercial business. It may appear less relevant to universities, but any organisation that is providing services for a fee needs to think about its pricing strategy.

##### *Market pricing*

In a market situation, services are priced according to supply and demand and to their perceived value to the customers ("what the customer will pay"). This will usually be higher than the full economic cost (defined below), allowing a margin for reinvestment and profit.

HEIs are sometimes in a market-pricing situation, but often this is only relevant to a part of their activity. Examples vary from country to country, but include:

- student tuition fees (US private universities)
- overseas and part-time student fees (England)
- part-time student fees (Netherlands)
- consultancy and advisory services (most countries)
- industrial research (most countries)

##### *Cost-based pricing*

Many HEIs would prefer to be able to market price, but in the public sector, much pricing is inevitably on the basis of costs. Public funding for teaching and research is usually a form of cost-based price, although the level of funding may also depend on policy decisions about what can be afforded and efficiency gains required.

In Ireland, the core recurrent funding allocation to the universities is informed by a formula based unit cost system the main inputs to which are the universities' audited financial statements and certified student enrolments... A key strength of the unit cost system is that costs are identified annually to course and even to course-year level per student. The data is robust, based on audited accounts, certified student numbers and timetabled teaching contact hours.

As already noted, there has been a tendency in many countries for expansion of higher education to be funded at a price below the real cost. Some of this financing deficit has been absorbed by HEIs as an efficiency gain, but it has also left them with reduced financial resilience and a reduced ability to respond to new policy initiatives.

### *The “Low price culture” in higher education*

The recent availability of better data on costs has exposed the extent of the “low price culture” that has developed in some countries, especially in research and other externally funded activity.

A number of factors contribute to the low price culture in higher education:

- constrained public funding
- management focus on gross income and marginal costs
- public service ethos
- social resistance to realistic levels of prices
- academic staff unaware of the full costs of their activity
- incentives to increase volumes (*e.g.* of research)

This combination of factors can lead to behaviours such as universities competing on price for contracts that are already below the full costs of the work and to institutions selling consultancy services or intellectual property at well below its market value. Such behaviour is damaging to the sustainability of the higher education system in the long-term, but the remedies are complex and will take some time to be fully effective.

The behaviour of English research universities in competing for research grants that pay less than full economic costs has been described as “the only suppliers cartel which operates to keep prices down”.

### **3.4.2 Costing**

Information on costs is needed for pricing, but it is also useful for other management purposes, listed below.

In the past, public sector bodies have tended to focus on the costs of the inputs they use (staff, buildings, equipment, etc.) or of management units (institution, faculty or department, etc.). However, in a business it is the costs of products and services provided to customers that are critical, and this has led to the development of activity-based costing (ABC). For HEIs this can provide information about the costs of teaching or research, the costs of different disciplines, the costs of different types of student (full or part-time, undergraduate or post-graduate), the costs of different modes of delivery (e-learning vs. traditional, etc.).

A number of the participating countries have developed initiatives in activity-based costing in higher education.

In Germany a growing number of universities and fachhochschulen are introducing cost and activity accounting.

This type of costing information serves several purposes:

- It shows managers which activities are in surplus or deficit and raises awareness of the true costs of activities.
- It may enable the HE sector to make a case to government or other funders for additional funding.
- It sets a guide for decisions on pricing and cost recovery (where these can be influenced by institutions).
- It provides information that can be useful in reviewing the value of activities in a portfolio analysis.

Academic staff time is one of the most significant cost elements in HEIs and any activity costing will require some method of allocating this between the main activities to be costed (teaching, research, etc.). In industry and the professions, it is normal practice to use staff time recording (and in some research organisations). However, there are technical difficulties about accounting for academic staff time and there are also cultural objections from many academics who work flexible hours and value their freedom from management control. It is possible to develop methods to allocate academic staff time without requiring academics to complete timesheets.

Other large elements of cost in higher education are due to use of space and services (IT, etc.). Costing methods need to be developed to allocate these costs to activities without undue bureaucracy.

### ***3.4.3 Cost recovery and full economic costs***

Understanding and recovering costs is central to financial sustainability. If each main activity of the institution generates enough income to cover its full economic cost (FEC), the institution can be financially sustainable.

#### *Full economic costs*

In a public sector environment where the government usually provides capital funding, budgets have tended to focus on recurrent costs of an organisation or activity. Where an institution is fully owned by a parent that bears the costs of investment and risk, it may be sustainable if it recovers the **full recurrent cost** of activity from its customers, since any capital costs will be financed by the parent. Of course this is subject to the parent *a)* having unallocated funds available and *b)* being able to give priority to the investment needs of the institution. When these conditions are not met, an institution that is recovering its recurrent costs, but is not planning to finance its own investment, may not be sustainable.

The **Full Economic Cost** of a publicly funded organisation or activity includes additional elements that have not always been visible to public sector managers. These are concerned with the costs of:

- consumption of assets (depreciation)
- renewing assets

- financing (costs of capital)
- risk

As institutions become more autonomous and take greater responsibility for their own assets and risks they need to recover these additional costs to enable them to be “self-financing”. This is the same for any public sector trading activity. It is analogous to the situation in the private sector where organisations need to recover an FEC that includes a profit element. This has to include dividends for shareholders that are part of the cost of capital for a business.

A major policy issue for achieving financial sustainability in institutions is therefore their ability to recognise and recover the full economic costs of running the organisation on a long-run basis. This is not a difficult issue in costing terms, but it requires a change of culture and behaviour by both funders and providers of higher education services.

#### *Issues about cost recovery*

Managing to Full Economic Cost is a policy objective in some countries, but it raises difficult cultural issues for HEIs, which include:

- the need to develop more comprehensive, commercial-style costing systems;
- lack of ownership of the responsibility for managing costs;
- inadequate funding (*e.g.* when necessary activity is funded below FEC institutions may see little incentive to seek better cost management);
- perverse incentives (*e.g.* academics are under pressure to increase volume and publications in research, even if this means accepting only part-funding or postponing necessary investment).

Changing to an FEC regime is a cultural change as much as a technical one. Traditional research universities are not managed organisations in the same sense as a business. Academics may perceive that they have freedom to apply for any research grants they wish (or to teach any courses) and that low cost recovery is not a legitimate constraint on this freedom. There can be a tension between academic objectives and cost recovery, and thus institutional sustainability. This can only be resolved fully through a process of integrating financial and academic strategies (see Section 3.3).

Of course, not all activities will be able to recover their full economic costs. Planned strategic subsidies are a legitimate management response provided the institution has other resources to finance them. A financial strategy that includes policies on cost recovery will help institutions to identify the financial implications of each activity and to make conscious decisions about the justification for any such subsidies, and how they are to be financed. It will also indicate the scope to reduce costs of necessary activity where funding is below FEC.

In Sweden a working group has recently undertaken a review of research projects in different disciplines to develop a system of full cost coverage for research. They have defined and developed norms and made proposals aimed at developing uniform definitions and methods of calculation which, it is hoped, will simplify the task of both institutions and their funders, whether public or private.

#### **3.4.4 Overtrading**

The funding and market pressures described in chapter 2, have led in several countries to institutions trying to sustain a volume of teaching and research, which is too high for the income they receive. This can be described as overtrading. If maintained over a significant period, overtrading will lead to a decline in the financial base of the institution and is hence a direct threat to sustainability.

Symptoms of overtrading that are seen in the participating countries include:

- institutions with decaying physical infrastructure;
- staff working excessive hours or having to supplement their salaries with private teaching and consultancy;
- institutions deferring necessary investment in *e.g.* teaching innovation or methods.

Overtrading is probably the most serious threat to financial sustainability of institutions. It is possible to ignore it for several years because financial accounts may not highlight the problem and the effect is cumulative and long-term. However, the costs of recovery from a position of long-term overtrading can be very high, possibly prohibitive. Institutions in this position may be forced to merge, or to surrender part of their autonomy – as a condition of being “rescued”.

There are two main management actions to correct overtrading: *a)* reducing the volume of unprofitable activity; or *b)* improving its financial recovery by reducing costs or increasing income of each unit of activity.

There may be academic reasons for retaining some unprofitable activity. Or there may be inertia or high exit costs that make it difficult to reduce volumes quickly. This may also be perceived as weakening the institution relative to its competitors. However, in the long term, maintaining a high volume of unprofitable activity is a high-risk strategy.

Cost reduction is familiar in most institutions. It is often the only option in a short-term fiscal crisis, but it can have negative consequences for staff, for efficiency and for future opportunities. It can be assisted by techniques like benchmarking. Some techniques for more strategic cost reduction were discussed in Section 3.3.

In Ireland, the issue of overtrading in relation to previously under funded research overheads has been addressed in a report in July 2003 and a system for identifying and adequately funding these costs is currently being developed.

It is also worth noting that cost recovery by institutions can also sometimes be improved by higher funding (a government policy decision) or by better project and asset management (a management action).

#### **3.4.5 Income generation**

Most financial strategies include an objective to increase income and the range of possibilities available to universities is increasing. Most institutions seek to maximise income from the main public sources that fund teaching and research (see discussion of The Funding and Financing Portfolio above). This may well be the most significant way an institution can increase its income, at least in the short term.

However, these sources are limited. They may not provide full economic costs and they will not reduce dependency on the State, which may leave an institution vulnerable to economic changes, or changes in policy.

There is therefore much interest in income generation from other sources. These fall into three broad categories:

- knowledge transfer activity (*i.e.* academic related)
- sale of spare capacity (conferences, etc.)
- fund raising

These are well developed in some institutions, but are less attractive where institutions are state-owned and have little freedom to retain or invest surpluses.

In general the commercial activities of Australian universities are restricted to the “purposes of the university” *i.e.* to the promotion of a university’s objects and interests or connected to the performance of the university’s functions. These restrictions apply to the establishment of companies, borrowing and investments, and the acquisition, use and disposal of university land (particularly Crown land).

In Germany, the *Länder* governments are enlarging the financial scope of action of the higher education institutions by giving them the right to retain money gained on behalf of the public funding (*e.g.* effective use of assets like letting facilities, commercialisation of patents, fund-raising activities, etc.).

The new National University Corporations in Japan will be able to: carry forward deficits and surpluses; dispose of lands (with Ministerial approval) and keep some of the proceeds; and take out long-term loans (with ministerial approval).

### *Issues about commercial income generation*

Because most higher education institutions are not for profit organisations, they experience difficulties in adapting to a commercial agenda. These include:

- their systems and processes (*e.g.* for costing and invoicing) are not well adapted to commercial needs;
- they have limited ability to respond quickly and accept risk;
- they find it difficult to provide appropriate incentives to staff who generate commercial income;
- they lack the skills and resources to manage intellectual property.

HEIs can be successful at commercial exploitation – especially when it is related to their academic strengths. However, it needs careful management to avoid tensions and difficulties that can reduce the potential benefits and increase risks.



### *Endowments and fund raising*

Fund raising includes seeking sponsorship and commercial partners and development of Alumni associations and other forms of giving. Some institutions have been very successful, often in relation to specific projects and sometimes using professional fund-raisers. Fund-raising is likely to be more successful if set within a strategy for the development of the institution that supports this kind of activity.

#### **Management challenges – operating sustainably**

- a. Do we understand the full economic costs of our activities?
- b. Are we able to recover full economic costs (FEC) across each of our main activities? If not, do we really need this capacity and what is the justification for it? Can we adapt our portfolio to improve the aggregate financial performance without damaging our strategic aims?
- c. Can we deliver the less profitable activities that we wish to retain in a different way to improve their cost recovery?
- d. Are we free to develop commercial activity and to benefit from this financially? Do we have a strategy for this? How should we manage this activity to maximise the benefits? How can we make sure it adds value to the institution?

#### **Case study: full economic cost recovery and sustainability in England**

In 1999, the government in the United Kingdom required all universities to introduce a new commercial-style costing system (the Transparency Review). This was introduced as an accountability mechanism to assure that additional public funding provided for research would be well used. It included a requirement to account for the use of academic staff time and to report costs of teaching, research and other activity at institutional level.

This project showed that a narrow focus on surplus and deficits of institutions masked longer-term problems of under-investment. A combination of cultural and economic factors had led to perverse incentives to institutions to neglect investment in physical infrastructure, in favour of spending to increase volumes of activity (especially research) in the short term. The Transparency Review also showed that nearly all university research was funded at below the long-run (full economic) cost.

National surveys of university infrastructure were conducted during 2001-02. These showed that the productive capacity of many HEIs had been eroded by long-term under-investment. Maintenance and renewal had not kept pace with needs, and much infrastructure was not well adapted to modern needs, technological advance and legislative requirements (health and safety, access, etc.). Some excellent world-class facilities for teaching and research have been funded, but often these have been achieved as a result of competition for government capital funding schemes. This had consumed most of the attention and budgets of universities, and it had sometimes led to opportunistic rather than strategic development.

The study also found that few institutions had comprehensive asset management strategies or any ability to finance such a strategy consistently because of the pressures on recurrent funding and the unpredictable nature of capital grants. Professional asset management has not been a high priority in the higher education sector, but this is changing.

This work showed that, over a long period, institutions need to invest approximately 4-5% of the total insured value of their physical assets on an annual basis in order to meet the needs of renewal and up-grading of buildings and equipment for modern higher education needs. This figure implies an average building life of closer to 20 years than the 40-50 years that is often assumed in accounting policies. High technology facilities (e.g. for biosciences research,

IT networks, etc.) need to be renewed more frequently than this, other facilities may have a longer life. Of course, investment may not be evenly spread and each HEI needs to consider its own needs in the light of its mix of activity and the nature of its assets.

The government has recognised these findings and is providing some additional capital and recurrent funding to institutions. However, it is not practical to provide remedial funding to the full amount that is potentially justified. In any event, future investment needs should be determined by institutional strategic plans, not simply renewing historic infrastructure, some of which may be no longer required. The government's policy for sustainability of institutional infrastructure therefore has three inter-linked strategies:

- a. Costing and cost recovery: institutions should determine the full economic costs of their activities and on average across all their activity, seek to recover their full economic costs so that the institution is financially sustainable. (The Transparency Review method – TRAC – is being extended to support this).
- b. Pricing: public funders of research should recognise the full economic costs of the research when they agree cost-based prices with universities.
- c. Strategic asset management: institutions should develop comprehensive asset management and investment strategies for their infrastructure.

This is a significant programme of reform that will take several years to implement. It will involve a significant change in culture and behaviour in the traditional research universities, but it should put their research portfolios onto a much more secure financial basis.

### **3.5 Investing for a sustainable infrastructure**

If the institution has a strategy and is recovering full economic costs on its normal operations, it meets two of the criteria for sustainability identified at the start of this chapter. The third condition is investing for sustainability.

This section focuses on physical infrastructure because it is easier to measure requirements and to monitor progress here. However inadequate investment in human resources can be just as critical as in physical resources. An important aspect of sustainability in some countries is that academic staff are relatively poorly paid and working long hours. It can be difficult to attract younger staff in some disciplines and some staff supplement their incomes through private consultancy or other non-university activity. Higher education institutions need to invest in people, just as in their physical infrastructure.

#### ***3.5.1 Maintaining productive capacity***

Sustainability requires institutions (or their parents) to have a strategy for the development of their physical assets – buildings, equipment and services – and to be investing to maintain these in a condition that permits effective modern teaching and research. There are some difficulties about valuing the assets of HEIs because they are often specialist and may have no alternative use. However, national reports show that the value of the asset base in higher education is very significant.

Normal accounting procedures require institutions to write-off their assets over their useful life (*e.g.* through depreciation). Published accounts include a charge for depreciation of the asset base and, in principle, this facilitates the generation of cash, which institutions can use to invest in asset renewal. However, several factors shown in the box can lead to a situation where such investment is inadequate.

**Accounting issues**

- Understated (historic) asset values and conservative depreciation policies can mean that the depreciation charge seriously understates the cost of maintaining assets in modern market conditions.
- Depreciation charges are an indicator of the costs of maintaining the original functionality of assets. They are not related to the changes in functionality required as a result of the rapid growth and development of higher education (especially in research, IT, new methods of teaching and learning, etc.).

**Management issues**

- Many institutions have not been creating surpluses or reserves and are unable to finance investment in assets. Some have significant backlogs of maintenance and renewal.
- In many countries, institutions look primarily to the State to finance capital investment. While institutions know that they need to invest, they do not control the funds to enable them to do so. This separation of responsibilities has often led to capital investment receiving a lower priority than it should.

**Perverse incentives**

- Institutional bids for capital funds tend to be successful when the economy and other government priorities permit or unsuccessful at other times. The timing and availability of capital thus provides little incentive for long-term planning, or for institutions to build financial reserves that they could use for future investment. Indeed there is sometimes a perception that those institutions making financial surpluses or managing their buildings well are less in need of public investment and so there is a perverse incentive to neglect long-term investment, in favour of present consumption.

**3.5.2 Requirements for a sustainable asset base**

As institutions become more autonomous, they increasingly need to take ownership of the long-term management of their assets. This requires them to develop infrastructure/asset management strategies and to have the freedom to dispose of assets, to make surpluses, to borrow, to invest.

Investment strategies should be forward-looking and driven by an institutional strategy. The question that institutions need to be answering is not “how much will it cost to bring our infrastructure up to modern standards?”, but rather “what infrastructure do we need in the future and what will it cost?” Many institutions have unsuitable historic infrastructure that is poorly utilised (by commercial standards) and expensive to maintain. Sometimes a more radical approach to what is needed for the future may be required.

The work on university infrastructure in England quoted in the case study above suggests that, over a long period, most English institutions will need to invest approximately 4-5% of the total insured value of their physical assets on an annual basis in order to meet the needs of renewal and up-grading of buildings and equipment for modern higher education needs. (This assumes a 60-year lifetime with major refurbishment twice in this period and a small amount of updating much more frequently.)

To achieve such levels of investment, HEIs need to be able to recover all their costs and to make surpluses on their normal operations, or they need to have access to regular and planned capital funding that is related to their long-term needs.

### ***3.5.3 Cash, surpluses and capital planning***

For many institutions, a central issue in financial strategy is to determine their financial objectives for cash and surplus.

#### *Why a surplus?*

Surpluses are an indicator of a financially secure institution and they provide cash, which gives flexibility to cope with contingencies and to respond to opportunities. They also permit borrowing and use of other external financing opportunities. In the absence of a steady and predictable stream of capital grants from government, surpluses generated by institutions are the only way that they can plan and finance capital investment adequately.

However, many managers in higher education have grown up in a public-sector culture where achievement of surplus is not a recognised objective and where it is common to give priority to consumption over investment. This is related to the issue about who is responsible for providing the investment for the future of the institution: is it the institution itself, is it the government, or is it a combination of the two? If the institution is partly or wholly responsible, senior academics and other institutional managers need to understand the importance of surpluses and what they mean.

#### *What level of surplus should be targeted each year?*

As part of considering what level of surplus they need, institutions should plan:

- what cash is needed for normal operations and capital investment, and what alternative forms of finance are possible or advisable;
- what cash is needed for projected growth and innovation;
- for some contingency to allow for unforeseen fluctuations in financial and operational performance, and to accommodate risks.

In England, HEFCE monitors the financial surplus or deficit position of HEIs and uses this as one measure of the overall financial health of the sector. While each institution has to determine its own needs, institutions should be aiming to recover full economic costs, which normally means making a surplus of at least 3-4% of income. In recent years, the total level of surplus in the sector has been much less than this and around a third of institutions have been operating in deficit.

### ***3.5.4 Borrowing and other external finance***

Businesses normally finance investment through a mixture of cash (*i.e.* past surpluses) and borrowing or other external financing. Borrowing and raising finance are familiar in some higher education systems, but less so in others. Institutional managements bear in mind that:

- their institution's borrowing capacity will depend on its financial health;
- there is a cost of servicing the debt;

- the lender may require some security or impose some additional financial constraints on the institution (some autonomy is sacrificed).

These are new experiences for many institutions and some boards of governors are understandably cautious about exposing traditionally-cash managed institutions to the uncertainties of borrowing or other types of financing deals. However, in a competitive market, institutions that can harness their credit-worthiness to improve their physical infrastructure and student services may gain a competitive advantage. In several countries, universities are now engaged in financing and strategic deals that bring with them a need for skills that have not been required in the past.

Lately, universities have also begun to engage in sophisticated financial arrangements for developing capital projects. They are developing projects with third party partners, making use of “real options” and having projects “off balance sheet” without financial underwriting by the universities. Moves towards leasing, rather than owning space and facilities, have become more evident, although they are not yet significant in relation to the total portfolio of fixed assets (Australia).

Some universities are now seeking and obtaining ratings from credit rating agencies.

*Stichting Waarborgfonds HBO* in the Netherlands monitors the quality of loans obtained by the universities of professional education in order to finance real estate. Every year, *Stichting Waarborgfonds* evaluates the running budget and the annual report of the universities of professional education they guarantee. If necessary, *Stichting Waarborgfonds* will contact the Board, or in the worst case, the Minister.

#### **Management challenges – investing in assets**

- Is the asset base of the institution appropriate to its future academic needs and strategic plans? Is it generating an adequate return – both academic and financial?
- Do our capital spending plans reflect the priorities in our strategy and future opportunities for the institution, as well as necessary investment in infrastructure, and to sustain the workforce and academic vitality of the institution?
- How can we finance this? What balance of internal and external finance should we plan?
- How much surplus do we need to make to support our capital and operating needs?

### **3.6 Risk management and dealing with financial crisis**

The new types of financing and strategic initiatives described above bring some new categories of risk to institutions. At the same time, the market and operational risks that have always been present have become more acute because of the range of pressures described in Chapter 2.

To deal with this more complex risk environment, institutions need a more strategic and systematic process of risk assessment and risk management, and this has to penetrate throughout the whole organisation if it is to protect institutions from serious financial failures.

Their aim should not necessarily be to eliminate or avoid risk, but rather to ensure that the risks they accept (and manage) are commensurate with the opportunities and benefits they expect to achieve.

Australian universities have developed a strong reliance on fee income from overseas students. The report notes that:

Given the reliance (in general) on both onshore and offshore overseas fee revenue, universities will have to consider and manage carefully, the financial risks associated with the accurate assessment of costs for delivering services, setting fees, assessment of exchange rates movement and competition for market share.

Some may argue that the universities have been diversifying their revenue base and engaging in commercial activities to reduce the risk of over-reliance on government funding. But the public perception is that with increased commercial exposure universities may be exposing themselves to higher levels of risk.

A strategic and forward-looking approach to risk can also be seen as an important aspect in the development of corporate governance. It is one that can help to resolve the dilemma of how governments can allow institutions to have greater autonomy, yet retain the necessary degree of policy and financial accountability.

### ***3.6.1 Key elements of risk assessment***

The essential elements in a process of systematic risk assessment and management include:

- an institutional strategic plan that includes and integrates the key academic and resources strategies listed in Section 3.3;
- a process of identifying risks and opportunities;
- a process for evaluating the likelihood and potential impact of the risk and determining what action can be taken to monitor, counter, or mitigate the risks;
- a review process that ensures that senior staff and governors have an overview of the risks and that an appropriate institutional manager “owns” each key risk and that risk assessments are kept up to date.

Some good practice points could include:

- involving governors, students, academics and external stakeholders – to avoid the danger of just taking a management view;
- focusing and being selective – a high-level review of 5 key risks is more valuable than a comprehensive register of all risks that no-one has time to read;
- regularly reviewing, updating and defining actions to be take to mitigate/manage the key risks;
- ensuring the process is bottom-up, involves a wide range of staff and is properly embedded and integrated with other planning and management processes.

### ***3.6.2 Dealing with financial crisis***

The ultimate outcome of failure to secure sustainability is financial failure of an institution. Fortunately, this is rare, but policies for sustainability need to include mechanisms to monitor and anticipate failure, and to deal with it when it occurs.

The potential for financial failure varies significantly between the participating countries. In general, state-owned institutions cannot fail and this may not be perceived as an issue in some of the participating countries.

In Germany, almost all higher education institutions are public corporations that form a part of the *Länder* administration and their budget funds are almost entirely provided from public sources. Higher education institutions do not face the risk of insolvency. As their possibilities to engage in commercial activities are limited, the compliance with financial regulations at state level, mainly the budget law and rules, have been adequate instruments to ensure financial monitoring for a long time.

As institutions become more autonomous, there is a greater risk of institutional failure. Some participating countries have experienced at least one case of an institution either failing, or having to be rescued financially.

In England, the Government has said it is not the banker of last resort. However, it remains to be tested whether government, or the HEFCE, would allow a major HEI to go out of business. Whilst there have been no insolvencies, several institutions in financial difficulty have merged with stronger institutions and as a result have lost their individual identity.

There are three phases to dealing with institutions in financial crisis:

- early warning and (hopefully) prevention;
- dealing with short-term financial problems;
- securing a more sustainable development trajectory.

This report is primarily about the third phase – *i.e.* securing a sustainable long-term future.

A number of countries have developed monitoring and early warning systems to assist in anticipating and dealing with financial problems. One of the more developed of these is the system used by the universities of professional education in the Netherlands where an intermediary body, independent of government acts as an external rating agency and change facilitator for the universities (Stichting Vangnet HBO – see case study attached).

Once institutions get into difficulties there are a number of possible scenarios. Government may help them out financially, but as the Netherlands case study notes, this may be unpopular if it is at the expense of the sector as a whole. Often the price of such rescue will be that senior management is replaced, a new strategic plan and monitoring arrangements may be required; sometimes a merger may be required. These changes can have negative impacts on the autonomy of the institution and the effectiveness of governance will also become an issue in such cases.

#### **Management challenges – risk management**

- a. What are the key risks to the institution and their potential financial consequences? Do the governors and management review these regularly?

- b. How do we recognise opportunities and manage the related risks? What is our strategy to mitigate and manage these risks?
- c. Do we have a process to ensure that significant risks are identified, that action to manage risks is identified and ownership of this action assigned? Is this process integrated with the institution's planning and budgeting processes?
- d. Are staff throughout the institution aware of the key risks and the part they can play in managing them?

### Case study: Stichting Vangnet HBO

In the Netherlands, the universities of professional education implemented an early warning system in 1997 and an independent trust (Stichting Vangnet HBO) to maintain this system. The main reason was the increased risk caused by rising expenditure on unemployment benefits. The universities felt that default risks should be contained, not least because the defaults were likely to be charged back to the sector as a whole. Vangnet and the Ministry of Education signed an agreement in which their mutual responsibilities are described. Vangnet does not deal with the research-intensive universities, which have their own internal methods to forecast problems.

Vangnet can be seen as an external supervisor, comparable to a rating agency. The Boards of Directors of the universities are responsible for their institutes. They are expected to take proper measures when the financial position of their university requires this and to give additional information to Vangnet. If a university of professional education is having or expecting financial problems, the university has to deal with Vangnet HBO in the first place. But Vangnet will support the university in taking corrective action and may provide loans.

The Early Warning System (EWS) is a complex of preventive measures or instruments, in order to monitor the financial development of universities of professional education. The objective of the system is to spot risks and opportunities as early as possible, on the basis of yearly information given by the universities. The main performance indicators used by Vangnet are solvability, profitability and liquidity. Vangnet has determined criteria for these indicators in the form of guidelines in order to assess the financial position of these universities.

As a result of the quantitative as well as qualitative analysis Vangnet categorises the universities of professional education in phases of alert:

- a. **Going concern:** this means that the current ratio and solvability give no reason to expect serious continuity problems within the forecasting period. No specific actions are expected.
- b. **Attention/hazardous:** this phase should not be an immediate continuity risk, but alert in order to take corrective actions, if necessary.
- c. **Reorganisation/alarm:** requires a reorganisation of the financial situation in order to guarantee the continuity of the institution.

*Vangnet* informs the universities of the results. In case of high or highest alert *Vangnet* will contact the Board of Directors in order to discuss the financial problems and possible solutions. If the Board does not act adequately *Vangnet* will inform the Supervisory Board.

A scheme to inform the Minister about the universities of professional education in a reorganisation phase has been laid down. The minister is not to intervene in the process between the institution and *Vangnet*. If the process ends without a satisfactory solution, there will be clear guidelines to follow. An advantage of this relatively wide gap between the universities and the Minister is:

- the universities have to handle its own problems;
- the Minister will not interfere in a way that is in the interest of one university, but not for the sector as a whole;



- the Minister does not have to spend (too) much time on solving (financial) problems of a single university.

An evaluation of *Vangnet* was undertaken in 2003. This concluded that the system has worked well and has enhanced financial sustainability of these institutions. Some further developments are planned.

### 3.7 Governance, leadership and management

#### 3.7.1 Governance and institutional sustainability

Governance is an important issue that spans both the policy agenda of Chapter 2 and the financial management agenda of this chapter. Governance arrangements can play an important part in the way that institutions are held accountable to the government and the public interest. They can also help institutions to ensure a coherent strategy and a sustainable development path

Much attention has been paid to corporate governance in the commercial sector in recent years. Parallel developments have been seen in the governance of HEIs. The increased complexity of the environment and the increasing autonomy of institutions have been to a large degree matched (and facilitated) by improvements in the independence and professional quality of governing bodies. In some countries, governing bodies were until recently relatively weak mechanisms composed of interested parties and retired “worthies”. However, significant reforms have taken place in a number of participating countries and governance is now much stronger.

A key element in such reforms is the achievement of a more genuinely independent and external representation on smaller and more effective governing bodies, which play a correspondingly more significant role in institutional strategy, accountability and sustainability.

There are two common models of university governance in Europe, the single-tier board used in most Anglo-Saxon countries and the two-tier structure (with a Supervisory Board and an Executive Board) described in the Dutch report. In the United States, a variety of models are seen in different states with an important distinction between governance and co-ordination as noted in the case study in chapter 2. In some US state systems, a single governing body manages the activities of a number of public institutions to make up a comprehensive State system of higher education.

Public institutions in the United States have a strong historical and legal tradition of institutional autonomy. Boards have responsibility for governing public colleges and universities and their responsibilities are similar to those of the boards of non-profit corporations. This provides a subtle, but interesting, shift in emphasis from the aim of government in some other participating countries to encourage their institutions to take a more “commercial” approach to governance and financial management. It can be argued, for example, that the remit of many non-profit organisations provides a closer parallel to that of higher education, balancing as it does short-term demands and delivery, with the need to secure long-term sustainability and the public interest.

The Irish financial governance framework is based on the 2001 HEA/CHIU report *The Financial Governance of Irish Universities – Balancing Autonomy with Accountability*. This framework typifies the partnership approach between the HEA and the universities that has developed in recent years and is an example of a proactive voluntary code of good financial governance, with the HEA role focused on oversight. The framework sets out the general requirements of good financial governance, the ultimate responsibility of the governing authority, requirements in relation to internal audit and for the head of the university to submit an annual report of verification to the HEA on the adequacy of all internal control systems.

The developments in the environment for institutions described in Chapter 2 all have the effect of making the roles of governors and senior management more critical to institutional sustainability. In many institutions, governors play a particular role with regard to the overall strategic direction of the institution and its financial solvency. They also tend to be strongly involved in decisions about investment and infrastructure.

The Australian reforms include initiatives to improve university governance. The Commonwealth has developed a set of National Governance Protocols for public HEIs. These build on an earlier review of governance that identified a number of weaknesses. They will strengthen university governance by increasing the responsibilities of university councils in overseeing commercial activities. They will include a formal programme of professional development for council members. Increases in Commonwealth funding will be conditional on implementation of these protocols (and other measures).

In the Netherlands the universities of higher professional education have commissioned a report on the transparency of the governance of the institutions. This report resulted in a number of recommendations that may be compared with similar reports in the corporate governance field. Considerable attention is paid to the distribution of supervisory roles.

### 3.7.2 Leadership and management

Just as the roles of governing bodies are becoming more critical, so are those of the senior managers of institutions and particularly of the chief executive. Vice chancellors and Presidents or Rectors increasingly have to combine the roles of academic leadership with strategic business management. This is not a common combination of skills and increasing attention is being paid to the recruitment, training and development of heads of institutions. Sometimes individuals are brought in from outside higher education, but these skills also need to be developed within the next tiers of institutional management to support corporate management of institutions and to develop leadership capacity for the future.

In England a new Leadership Foundation has recently been created to provide professional development support to heads of institutions and other senior managers in higher education.

In Germany:

A turning point to a more **professional institutional management** is characterised by the following reforms that have taken place in recent years:

- At central level: implementation of a cooperative university management (presidential committee) with different departments (e.g. for research, teaching, international affairs, ...) under the responsibility of vice presidents (vice rectors) and strengthening of the management.
- Limitation of functions of the senate to matters of principle and largely shifting of decision-making authority from the senate to the presidential committee.
- Introduction of higher education boards with mainly advisory competences (composed of external experts of high public standing from higher education institutions, research and economy).
- Change of the employment status of the chancellor from an appointment of life into a term of office of 8 years in most of the *Länder*.

At department level: longer terms of office for the deans and strengthening of their responsibilities against the collegial bodies by limiting their tasks to matters of principle and a clear assignment between executive and monitoring functions.

Modern higher education institutions need professional strategic managers in the key non-academic functions of finance, personnel, estates, systems, etc. A number of English research universities are now recruiting senior managers from industry and changing some of the titles of traditional roles (for example one leading research university no longer has a “Secretary and Registrar”, but has recruited a “Director of Commercial Services” with many of the same responsibilities). The changing role of the Director of Finance is particularly critical in the context of financial sustainability.

In England, the role of the university Director of Finance (the title itself was not usual ten years ago) has changed over the past 10 years from being “a finance officer” whose main concern was to manage budgets, to a commercial-style strategic manager who has to understand all aspects of the business and to be able to deal with a much broader range of strategic financial issues including unconventional forms of financing, joint ventures, etc.”

### 3.8 Summary – challenges for institutions

This chapter has identified management challenges in four areas that relate to the conditions for sustainability: developing an integrated institutional strategy; recovering full economic costs of activities across the operations of the institution; investing for sustainability; and managing risks and dealing with financial crisis. The chapter has also noted that effective strategic governance and management of institutions are critical to securing a sustainable future.

A common thread through these areas relates to the extent to which institutions are capable of taking responsibility for their own financial sustainability. In many parts of the OECD, institutions have looked to governments to assure their funding and investment. Many academic staff in the more traditional institutions have regarded better management as something that is peripheral to their academic objectives related to teaching, scholarship and research. And few institutions were willing to invest in modern professional managers and management systems.

However, the national reports suggest that this culture is changing in some countries and institutions, partly driven by the financial, environmental and market pressures described in Chapter 2. It is also driven by the changing nature of academic life itself. Research in the sciences and medicine is a high-technology collaborative activity that consumes substantial levels of resources and so demands some of the same management skills that are used in commerce. Another driver is that governments are pushing universities into much closer collaboration with business and, increasingly, many academic staff have close contacts with business.

The challenges for governors and managers of higher education institutions are therefore related to how best they can introduce appropriate management techniques and incentives into their institutions in a way that will respond to these pressures, but without undermining the fundamental mission of the institution. This is one of the greatest challenges in the public service today.

- Have we developed an integrated management team in which the academic and non-academic managers respect each others' contribution and share a common set of values and objectives?
- Are our academic strategies informed and supported by the most professional management skills in the financial, estates, personnel and systems areas?
- Do our strategies enable us to develop and grow our position in the market, playing to our strengths rather

than maintaining under-performing or historic activities?

- Are we taking greater responsibility for our own future, or are we still too dependent on decisions made outside the institution?
- Are we strong enough to deal with risks and contingencies that may threaten our sustainability?
- Are we developing our staff to become the strategic institutional managers of the future?

## APPENDIX 1 – SOME KEY FEATURES OF THE HE SYSTEMS IN THE PARTICIPATING COUNTRIES

The eight countries participating in this project represent a cross-section of OECD member countries. Some descriptive comments and summary statistics about their HE systems are included in the table below. This is included to illustrate the diversity of national systems within the eight participating countries. It is not intended to be a definitive set of consistent data. In particular, the numbers of institutions and students are not necessarily on a strictly comparable basis – either in terms of census date or in terms of definitions.

|               | System           | Institutional types                    | No. of HEIs | No. of students | Increase in student numbers 1990-2000 | State revenue as % of total income |
|---------------|------------------|--|-------------|-----------------|---------------------------------------|------------------------------------|
| Australia     | National/federal | Public unitary                         | 40          | 700 k           | High                                  | 60%                                |
| England       | National         | Public unitary                         | 130         | 1.7 m           | High                                  | 60%                                |
| Germany       | Federal          | Public segmented (Uni/Fschulen/olls)   | 345         | 1.8 m           | Modest                                | 95% (most from <i>Länder</i> )     |
| Ireland       | National         | Public binary (Uni/technical inst)     | 21          | 115 k           | High                                  | 80-90%                             |
| Japan         | National         | Public/private binary                  | 1 290       | 2.8m            | Modest                                | 55%                                |
| Netherlands   | National         | Public binary vocational/research      | 61          | 450 k           | Modest                                | 65%                                |
| Sweden        | National         | Public unitary                         | 39          | 300k            | High                                  | 65%                                |
| United States | Federal          | Public/private carnegie classification | 4 200       | 14.8m           | Modest                                | 35-50%                             |

*Note:* the above categories reflect the main type of HE environment where the major part of HE is delivered. There are usually some minor exceptions (e.g. private theological colleges in Australia), which are not included above to avoid undue complexity.

## APPENDIX 2 – SOME CHARACTERISTICS OF NATIONAL SYSTEMS OF GOVERNANCE

| Type of system            | Key characteristics of higher education institutions |  |  |   |   |
|---------------------------|--|--|--|---|---|
|                           | Legal entity   | Structure and plans                                | Staff  | Assets  | Funding sources/ commercial freedom   |
| State owned               | Public sector  | State determines                                   | Civil servants   | Owned by State                                  | State budgets no scope to make or retain surpluses                            |
| Agency of state           | Public sector, but separate legal entity             | State approves                                     | Key staff are appointed by State and pay and conditions set nationally | Funded by State, which controls disposals, etc. | Predominantly core funded; limited power to raise income and create surpluses |
| State/private Partnership | Private sector, but subject to State controls        | State consults and can influence (through funding) | Institution employs with State influence or controls                   | Privately owned, but some funding by State      | Both core and contract income; can generate and retain own income             |
| Private/State             | Private sector                                       | State has little involvement                       | Private  | Private, little state funding                   | Contract and commercial income  |

### EXISTING OECD EDUCATION WORKING PAPERS

- No.1 *Teacher Demand and Supply: Improving Teaching Quality and Addressing Teacher Shortages* (2002), Paulo Santiago.
- No.2 *Teacher Education and the Teaching Career in an Era of Lifelong Learning* (2002), John Coolahan.
- No.3 *Towards an Understanding of the Mechanisms That Link Qualifications and Lifelong Learning* (2003), Friederike Behringer, Mike Coles.
- No.4 *Measuring Educational Productivity in Standards-Based Accountability Systems: Introducing the SES Return on Spending Index* (2005), Martin Hampel.
- No. 5 *PISA 2000: Sample Weight Problems in Austria* (2006), Erich Neuwirth.
- No. 6 *Funding Systems and their Effects on Higher Education Systems – International Report* (2007), Franz Strehl, Sabine Reisinger and Michael Kalatschan.

### RECENT OECD PUBLICATIONS OF RELEVANCE TO THIS WORKING PAPER

- Hazelkorn, Ellen (2005), *University Research Management: Developing Research in New Institutions*, OECD, Paris.
- OECD (2003), *Education Policy Analysis: 2003*, OECD, Paris.
- OECD (periodical – ISSN: 16823451), *Higher Education Management and Policy: Journal of the Programme on Institutional Management in Higher Education*, OECD, Paris

## **THE OECD EDUCATION WORKING PAPERS SERIES ON LINE**

The OECD Education Working Papers Series may be found at:

- The OECD Directorate for Education website: [www.oecd.org/edu/workingpapers](http://www.oecd.org/edu/workingpapers)
- The OECD's online library, SourceOECD: [www.sourceoecd.org](http://www.sourceoecd.org)
- The Research Papers in Economics (RePEc) website: [www.repec.org](http://www.repec.org)

If you wish to be informed about the release of new OECD Education working papers, please:

- Go to [www.oecd.org](http://www.oecd.org)
- Click on “My OECD”
- Sign up and create an account with “My OECD”
- Select “Education” as one of your favourite themes
- Choose “OECD Education Working Papers” as one of the newsletters you would like to receive

For further information on the OECD Education Working Papers Series, please write to: [edu.contact@oecd.org](mailto:edu.contact@oecd.org).